

REMARKS

Applicant expresses appreciation to the Examiner for consideration of the subject patent application. This Response is to the final Office Action mailed August 2, 2004. Claims 1-3, 5-8 and 17-19 were rejected. Claims 4, 9-16, 20 have been pursued in the original case and were previously canceled. Claims 1, 17 and 18 have been amended in this Response. Claims 1-3, 5-8 and 17-19 remain in the case. Applicant respectfully requests the Examiner to reconsider the final rejection in this case and to allow the pending claims.

Introduction

The present invention is directed to a multipath printer system that has the capability of duplex printing. Three media paths are provided for carrying a sheet of print media from a sheet pickup mechanism to the printer device, carrying the sheet from the printer device to a sheet exit opening and carrying the sheet from the exit opening back to the printer device. A sheet diverter has first and second operating positions to allow the sheet to pass in a first flow direction and to divert the sheet as it travels in a second flow direction. A sheet pickup mechanism has a first operating position for picking up the sheet from a dispensing tray and a second operating position that directs the sheet toward the printer device to serve as part of a duplex printing path when the sheet travels in the second flow direction toward the print device.

With respect to the sheet pickup mechanism described above in claim 1, by way of example, reference is made to Figures 1(a) and (b) and 2(a) and (b) showing the sheet pickup mechanism 58 in two distinctive operating positions. In the first operating position shown in Figures 1(a) and (b), the axle of the front roller 58B of mechanism 58 is lowered to a lower level 88 so that the belt 58A will come into contact with sheets in the dispensing tray. Rollers 58B and 58C rotate in a clockwise direction to dispense a sheet from the dispensing tray. See page 9, line 18 through page 10, line 8. In the second operating position shown in Figures 2(a) and (b), the axle of the front roller 58B is substantially horizontal at level 88 with the rearward pickup roller axle 58C rotating in a counterclockwise direction to convey the sheet to the printer device for duplex printing. See page 15, lines 25-32 and page 16, lines 1-19.

Office Action - Claim Rejections - 35 U.S.C. § 102

Claims 1, 5, 6, 17 and 18 were rejected on the basis of 35 U.S.C. Section 102(b) as being anticipated by Yoshikado et al. (US Patent No. 5,055,885). The Examiner pointed out that Yoshikado discloses a printer having a plurality of media paths that carry a sheet from a tray to a printer device and then to a sheet exit opening. The Examiner further pointed out that Yoshikado discloses a media path that carries the sheet from the exit opening back to the printer device for duplex printing, and further stated that Yoshikado shows a diverter that allows the sheet to pass in a first flow direction and diverts the sheet in a second flow direction.

With regard to the sheet pickup mechanism disclosed in the present application, the Examiner states:

A feeding roller (8), which reads on a sheet pickup mechanism, has a first operation position, shown in figure 19, wherein the mechanism picks up the sheet from a sheet dispensing tray, and a second operating position, shown in figure 6, wherein the mechanism serves as part of a duplex printing path when the sheet travels in the second flow direction, toward the printer device (3).

Final Office Action, page 3. Looking at figures 19 and 6 of Yoshikado, reveals that there is no change in position of the feeding roller 8, as suggested by the Examiner. The figures simply demonstrate the feeder roller rotating when in operation. "As shown in FIG. 19, in which the same parts are represented as those in FIG. 18, when the feeding roller 8 rotates, the sheet of paper a, indicated by a solid line, is moved out of the paper cassette 7." Yoshikado, col. 2, ln. 5. The position of the feeder roller 8 does not differ between FIG. 18 and FIG. 6, so with respect to the feeder roller 8 in the above quoted segment, FIG. 18 and FIG. 6 are interchangeable. It is clear that the feeding roller 8 does not change positions, but rather rotates in its single position when operating. Therefore, the position shown in FIG. 19 and FIG. 6 is the operating position of the feeding roller as it rotates to pick up a paper. This operating position is the one and only position of the feeder roller. There simply is not any repositioning of the feeder roller from a first operating position to a second operating position.

To contrast this with the sheet pickup mechanism disclosed in the current application, "In its first operating position, the sheet pickup/transport device 58 has an inclined orientation such as that depicted by the phantom lines employed in Figure 2(b)." Eskey Specification, pg. 13, ln.

1-3. "In its second operating position, the device 58 has a substantially horizontal orientation such as that shown in Figure 1(d)." Eskey Specification, pg. 12, ln. 27-29. Therefore, while the feeder roller of Yoshikado has no movement other than rotating in place, the sheet pickup mechanism of the current application has a first inclined position from which it moves to a second substantially horizontal position. From these two different physical positions, the sheet pickup mechanism is able to perform two distinct operations.

Another point of distinction between the feeder roller disclosed in Yoshikado and the sheet pickup mechanism in the present application is that the feeder roller in Yoshikado only rotates in one direction. "Because force is only applied to the paper a in one direction by the feeder roller 8, the paper a will not be susceptible to skew." Yoshikado, col. 7, ln. 2-4. The sheet pickup mechanism disclosed in the current application rotates in two directions. In the first operating position, the rollers 58B and 58C rotate in a clockwise direction to pick up a sheet from the dispensing tray. In the second operating position, the rollers 58B and 58C rotate in a counterclockwise direction to send the sheet being duplexed toward the printer. Thus, the rollers rotate in one direction to perform a sheet pickup function and the opposite direction for a sheet transport function.

The feeder roller 8 in Yoshikado only has one operating position and from that position it rotates in only one direction. The sheet pickup mechanism disclosed in the current application has two operating positions, a first inclined position with the rollers rotating in one direction and a second substantially horizontal position with the rollers rotating in another direction. Thus, claim 1 clearly distinguishes over the Yoshikado patent.

Looking at claim 1, the description at step 7 has been clarified by noting that the second operating position is different from the first operating position and serves to transport the sheet toward the printer device. This change clarifies that the first operating position serves to pick up a sheet from the dispensing tray, whereas the second operating function, which is different from the first operating function, serves to direct the sheet in a duplexing operation toward the printer. As discussed above, the Yoshida patent does not show this arrangement.

Claims 5 and 6 are dependent on claim 1 and therefore also distinguish over Yoshikado for the reasons given above.

Claim 17 is an independent method claim that includes, at step 6, positioning a sheet pickup mechanism in a first operating position for picking up a sheet from the dispensing tray and driving it toward the printer and a second operating position, different from the first operating position for driving the sheet towards the printer as a part of a duplex printing path. As mentioned above, Yoshikado does not disclose such a method. Rather, in Yoshikado a pickup mechanism is shown having only one operating position, as best seen in Figures 18, 19 and 25. Thus, claim 17 clearly distinguishes over the Yoshikado patent.

Claim 18 is dependent on claim 17 and provides more specificity regarding the pickup mechanism. The pickup mechanism includes a roller that rotates in a first direction during the first operation and rotates in a second direction in the second operating step. This action is clearly not shown in Yoshida.

Office Action - Claim Rejections - 35 U.S.C. § 103

Claims 2 and 3 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikado et al. (U.S. Pat. 5,055,885) in view of Watanabe (U.S. Pat. 4,755,855). The Yoshida reference was cited for disclosing a printer as discussed above, and Watanabe was cited as disclosing an image forming apparatus having three paper supply cassettes, which provide three sheet entry openings in the housing which a sheet can be delivered for transport to the printer device. Applicant respectfully submits that neither Yoshikado nor Watanabe separately or in combination disclose a pickup mechanism having two operating positions as discussed above. Therefore, it is submitted that neither Yoshikado nor Watanabe together or separately render the invention claimed in claim 1 obvious. Since claims 2 and 3 are dependent on claim 1, it is submitted that these two claims also are not rendered obvious by the combination of Yoshikado and Watanabe.

Claims 7 and 8 were rejected on the basis of 35 U.S.C. Section 103(a) as being unpatentable over Yoshikado et al. (US Patent No. 5,055,885) in view of Yoshida et al. (US Patent No. 5,678,157). Yoshida was cited for concept of disclosing two sheet dispensing trays. Applicant respectfully submits that neither Yoshikado or Yoshida alone or together do not show a pickup mechanism having two operating positions as discussed above. Therefore, it is submitted that neither Yoshikado and Yoshida separately or together render the invention

claimed in claim 1 obvious. Since claims 7 and 8 are dependent on claim 1, it is submitted that these two claims also are not rendered obvious by the combination of Yoshikado and Yoshida.

Claim 19 was rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikado et al. (US Patent No. 5,055,885) in view of Nelson (US Patent No. 4,924,275). Nelson was cited for the concept of providing duplex printing by dispensing sheets from a dispensing tray and delivering the sheets to a collection tray. Since claim 19 is dependent on claim 17, it distinguishes over the Yoshikado patent for the reasons stated above. It is therefore submitted that the combination of Yoshikado and Nelson do not disclose or render obvious claim 19. Thus, claim 19 is also allowable over these references.

CONCLUSION

In light of the above amendments and comments, Applicant respectfully submits that pending claims 1-3, 5-8, 17-19 are now in condition for allowance. Therefore, Applicant requests that the objections be withdrawn, and that the claims be allowed and passed to issue. If any impediment to the allowance of these claims remains after entry of this Amendment, the Examiner is strongly encouraged to call Vaughn North at (801) 566-6633 so that such matters may be resolved as expeditiously as possible.

The Commissioner is hereby authorized to charge any additional fee or to credit any overpayment in connection with this Amendment to Deposit Account No. 08-2025.

DATED this 24 day of September, 2004.

Respectfully submitted,



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